

REMARKS

Claims 1, 15, and 30 have been amended. Claim 7 has been cancelled. Claims 1, 4-5, 7, 9-19, and 30 are currently pending in the application.

Claims 1, 4, 5, 7, 10-19, and 30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,351,323 (Onaka) in view of U.S. Patent No. 4,945,531 A (Suzuki) and U.S. Patent No. 6,594,410 B2 (Kersey).

On page 9 of the Office Action, in the Response to Arguments section, the Examiner alleged that Suzuki teaches a wavelength selecting filter for removing noise present in "any bands other than a signal band of each optical signal passing through the tunable wavelength selecting element disclosed by Onaka."

Applicants respectfully submit that independent claims 1, 15, and 30 are patentable over the references, as none of the references, alone or in combination, disclose or suggest, "a wavelength selecting filter optically connected to said tunable wavelength selecting element for removing noise present in any bands other than a signal band of each optical signal passing through said tunable wavelength selecting element," as recited in independent claims 1, 15, and 30.

Contrary to the Examiner's allegation regarding the teaching of Suzuki, the optical filter in Suzuki does not remove noise in any bands other than a signal band of each optical signal passing through the tunable wavelength selecting element. Rather, the filter of Suzuki simply reduces noise level, as would any standard filter. Therefore, Suzuki adds nothing of relevance to the combination of references.

Moreover, Applicants respectfully submit that none of the references disclose or suggest, "wherein said transmission band of each of said optical demultiplexer and said optical multiplexer per wavelength channel is wider than the band of each wavelength channel of said WDM signal light."

As Onaka does not disclose an optical demultiplexer and an optical multiplexer, Onaka does not disclose or suggest a transmission band per wavelength channel that is wider than a band of each wavelength channel of WDM signal light. Although Suzuki discloses an optical demultiplexer for demultiplexing optical signals, Suzuki does not disclose or suggest the above-identified feature of the claims. As Kersey adds nothing of relevance to the combination, the above-identified claims are patentable over the references, as none of the references, alone or in combination, teach or suggest the above-identified feature of the claims. As the dependent

claims depend from respective independent claims, the dependent claims are patentable over the references for at least the reasons presented for the independent claims.

In response to Examiner's allegation regarding attack of the references individually, Applicants respectfully submit that Applicants arguments are based on the combination of references. For example, Applicants argue that a first reference does not cure the deficiencies of a second reference, and as a whole, the combination does not disclose or suggest the features of the present invention.

Further, regarding claim 30, Applicants respectfully submit that as a result of the components identified in claim 30, that is, the plurality of optical node devices arranged as specified, the transmission band per wavelength channel of the optical demultiplexer and the optical multiplexer included in the first optical node having a central wavelength as specified, and the transmission band per wavelength channel of the optical demultiplexer and the optical multiplexer included in the second optical node device having a central wavelength channel as specified, noise components other than a signal band of each optical signal can be removed by a combination of the optical demultiplexers and multiplexers in the first and second optical nodes.

Accordingly, even if transmission bands per wavelength channel of the optical demultiplexers and optical multiplexers in the first and second optical nodes are wider than a signal band of each optical signal, noise components contained in a band other than a signal band of optical signal which passes through an optical ring network are removed, thereby preventing the oscillation of optical power.

Kersey discloses, "The filter function 47 of one of the gratings (i.e., 44) comprises a relatively broad wavelength band having a generally rectangular profile, centered about reflection wavelength λA . The filter function 48 of the other grating (ii.e., 44') comprises a relatively broad wavelength band having a generally rectangular profile, centered about reflection wavelength λB , as disclosed in column 16 of lines 8-14 of Kersey. Applicants respectfully submit that the filter functions 47 and 48 are provided in one node.

As a signal light transmitted in a closed loop passes through the narrow bandpass filter in one node having filter functions 47 and 48, a spectrum of a signal light passing through each node is narrowed. Accordingly, a transmission characteristic of an optical signal light degrades.

As a result of the above-identified components of the present invention, noise components are removed by two operations using two filters in two different nodes, that is, the

first and second nodes. Accordingly, a spectrum of a signal light in a closed loop in a system (claim 30) becomes wider than that of Kersey.

Accordingly, in the system of claim 30, degradation of transmission characteristic can be suppressed, in contrast to Kersey. Therefore, claim 30 is patentable over the combination of references, in addition to the reasons provided above in conjunction with claim 1.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

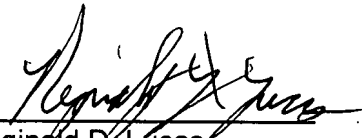
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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